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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/903,752	07/13/2001	Noriyuki Kawano	211402US2	2054

22850 7590 09/30/2005

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EXAMINER

ORTIZ CRIADO, JORGE L

ART UNIT	PAPER NUMBER
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2655

DATE MAILED: 09/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/903,752	KAWANO, NORIYUKI	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jorge L. Ortiz-Criado	2655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06/23/2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7, 22-31, 42 and 49-56 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-7, 22-31, 42 and 49-56 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/24/2004 has been entered.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 22-31, 42 and 49-56 are rejected under 35 U.S.C. 102(b) as being anticipated by Ikegame Japanese Publication. No. 10-116431.

Regarding claim 1, Ikegame discloses an objective lens drive apparatus configured to be used in an optical pickup (See Abstract), comprising:

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a magnetic circuit comprising a magnet configured to be magnetized in two polarities  
(See Detailed description [0033]; Figs. 11, 12, ref# 8,9); and

a coil unit comprising a “laminare” structure (See detailed description [0028]; Figs. 12  
ref# 23,24) including

a focus coil (See detailed description [0028]; ref # 3),

a tracking coil (See detailed description [0028]; Figs. 12, ref # 4)and

a tilt coil (See detailed description [0028]; Figs. 12, ref # 5,6),

wherein the “laminare” structure is disposed within a magnetic gap of the magnetic  
circuit (See detailed description [0028]; Figs. 11,12)

Regarding claims 2, 23 and 28, Ikegame discloses wherein the magnetic circuit comprises  
a plurality of magnets (See Detailed description [0028]; Figs. 11, 12, ref#8,9)

Regarding claims 3, 24 and 29, Ikegame discloses wherein the coil unit comprises a  
plurality of printed circuit boards, and the focus coil, the tracking coil and the tilt coil are  
separately disposed on the printed circuit boards (See Detailed description [0028]; Figs. 11,  
12,ref# 23,24)

Regarding claim 4, Ikegame discloses wherein the coil unit comprises a plurality of first  
and second printed boards, and the focus coil and the tracking coil are disposed on the first  
printed board and the tilt coil is disposed on the second printed board (See Detailed description  
[0028]; Figs. 11, 12,ref# 23,24)

Regarding claim 5, Ikegame discloses wherein the coil unit comprises a plurality of first and second printed boards, and the focus coil and the tilt coil are mounted on the first printed board and the tracking coil is mounted on the second printed board (See Detailed description [0028]; Figs. 11, 12, ref# 23,24)

Regarding claim 6 and 31, Ikegame discloses wherein the coil unit comprises only one focus coil, and even number of the tracking coils and two of the tilt coils (See detailed description [0028]; Figs. 11,12) and wherein the magnet is magnetized in two polarities in a focus direction (See Detailed description [0033]; Figs. 11, 12, 13 ref# 8,9)

Regarding claims 7 and 26, Ikegame discloses wherein the coil unit comprises an even number of focus coils, only one tracking coil and two tilt coils (See detailed description [0028]; Figs. 11,12), and wherein the magnet is magnetized in two polarities in a tracking direction (See Detailed description [0033]; Figs. 11, 12, 13 ref# 8,9)

Regarding claim 22, Ikegame discloses an objective lens drive apparatus used in an optical pickup to detect the inclination of an optical disk to adjust the inclination of an objective lens in accordance with an inclination signal of the optical disk (See Abstract), comprising:

a magnetic circuit comprising a magnet configured to be magnetized in two polarities (See Detailed description [0033]; Figs. 11, 12, ref# 8,9); and

a coil unit comprising a "laminate" structure (See detailed description [0028]; Figs. 12 ref# 23,24) including

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a focus coil (See detailed description [0028]; Figs. 12, ref # 3),  
a tracking coil (See detailed description [0028]; Figs. 12, ref # 4)  
and a tilt coil (See detailed description [0028]; Figs. 12, ref # 5,6),  
wherein the laminate structure is disposed within a magnetic gap of the magnetic circuit  
(See detailed description [0028]; Figs. 11,12)

wherein a focus servo is configured to be executed by supplying currents respectively to a plurality of the focus coils due to the sum of drive forces generated in the plurality of focus coils, and wherein an inclination adjustment of the objective lens is configured to be executed by generating moment around the center of gravity of a movable part due to the difference between the drive forces (See detailed description [0032]-[0037]; Fig. 13)

Regarding claims 25 and 30, Ikegame discloses wherein the coil unit comprises a printed circuit board, and the focus coil and the tracking coil are disposed on the printed circuit board  
(See Detailed description [0028]; Figs. 11, 12, ref# 23,24)

Regarding claim 27, Ikegame discloses an objective lens drive apparatus configured to be used in an optical pickup to detecting the inclination of an optical disk to adjust the inclination of an objective lens in accordance with an inclination signal of the optical disk (See Abstract), comprising:

a magnetic circuit comprising a magnet configured to be magnetized in two polarities  
(See Detailed description [0033]; Figs. 11, 12, ref# 8,9); and

a coil unit comprising a coil unit comprising a "laminate" structure (See detailed description [0028]; Figs. 12 ref# 23,24) including

- a focus coil (See detailed description [0028]; Figs. 12, ref # 3),
- a tracking coil (See detailed description [0028]; Figs. 12, ref # 4)
- and a tilt coil (See detailed description [0028]; Figs. 12, ref # 5,6),

wherein the laminate structure is disposed within a magnetic gap of the magnetic circuit (See detailed description [0028]; Figs. 11,12)

wherein a tracking servo is configured to be executed by supplying currents respectively to a plurality of the focus coils due to the sum of drive forces generated in the plurality of focus coils, and wherein an inclination adjustment of the objective lens is configured to be executed by generating a moment around a center of gravity of a movable part due to a difference between the drive forces (See detailed description [0032]-[0037]; Fig. 13)

Regarding claim 42, Ikegame discloses an objective lens drive apparatus for use in an optical pickup (See Abstract), comprising:

- a magnetic circuit comprising a magnet configured to be magnetized in two polarities (See Detailed description [0033]; Figs. 11, 12, ref# 8,9);
- a coil unit comprising a "laminate" structure (See detailed description [0028]; Figs. 12 ref# 23,24) including
  - a focus coil (See detailed description [0028]; Figs. 12, ref # 3),
  - a tracking coil (See detailed description [0028]; Figs. 12, ref # 4)
  - and a tilt coil (See detailed description [0028]; Figs. 12, ref # 5,6),

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the laminate structure disposed within a magnetic gap of the magnetic circuit (See detailed description [0028]; Figs. 11,12)

and a lens configured to be adjusted in a focusing direction, a tracking direction, and a tilt direction by the magnetic circuit and coils is provided in a lens holder (See detailed description [0028]; Figs. 11,12,13)

Regarding claims 43-45, Ikegame discloses wherein one coil unit corresponds to one magnetic circuit (See detailed description [0028]; Figs.11, 12)

Regarding claims 46-47, Ikegame discloses wherein at most one coil unit is disposed within the magnetic gap (See detailed description [0028]; Figs.11, 12)

Regarding claim 48, Ikegame discloses wherein at most one coil unit is provided to correspond to the magnetic circuit (See detailed description [0028]; Figs.11, 12).

Regarding claims 49,51,53 and 55, In regard to the features process of making “focus, tilt and tracking coils are disposed on a plurality of circuit boards, the plurality of circuits boards **forming** the “laminate” structure with one another.

A "product by process" claim is directed to **the product per se, no matter how actually made**, see In re Hirao, 190 USPQ 15 at 17 (footnote 3, CCPA, 5/27/76); In re Brown, 173 USPQ 685 (CCPA 5/18/72); In re Luck, 177 USPQ 523 (CCPA, 4/26/73); In re Fessmann, 180 USPQ 324 (CCPA, 1/10/74); In re Thorpe, 227 USPQ 964 (CAFC, 11/21/85).



The patentability of the final product in a "product by process" claim must be determined **by the product itself and not the actual process** and an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not.

Furthermore, Ikegame discloses wherein the focus, tilt and tracking coils are disposed on a plurality of circuit boards, the plurality of circuits boards forming the "laminate" structure with one another (See detailed description [0028]; Figs. 11,12)

Regarding claims 50,52,54 and 56, Ikegame discloses wherein "an objective lens"/"lens" is disposed outside of the laminate structure (See Fig. 11,12)

3. The prior art made of record and not relied upon is considered **pertinent** to applicant's disclosure.

a. Japanese Publication. No. 07-093778 to Kubo, which discloses an objective lens drive apparatus configured to be used in an optical pickup comprising a magnetic circuit comprising a magnet configured to be magnetized in two polarities a coil unit comprising a laminate structure including coils wherein the laminate structure is disposed within a magnetic gap of the magnetic circuit.

b. Japanese Publication. No. 07-105553 to Kubo, which discloses an objective lens drive apparatus configured to be used in an optical pickup comprising a coil unit with a printed coils circuit board with disposed within a magnetic gap of a magnetic circuit.

***Response to Arguments***

2. Applicant's arguments filed 11/24/2004 have been fully considered but they are not persuasive.

Applicants argue that Ikegame does not show or state the claimed feature **“ONE coil unit”** including focus, tracking and tilt coils.

The Examiner cannot concur, because **as claimed**, Where or When is claimed the feature **“ONE coil unit”**?

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., **“ONE coil unit”**) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Nevertheless, Ikegame discloses **“one coil unit or as claimed one oil unit”** comprising printed boards 23 and 24 which the tracking coil, a focusing coil and a tilt coil are formed and where the printed boards are fixed facing each other to be configured as a whole unit (See detailed description [0028]; Figs. 11,12).

What precisely, does the Applicant believe to correspond to **“one coil unit or a coil unit**, as claimed? Applicant is reminded that the claims are interpreted in light of the specification; **limitations from the specification are not read into the claims**. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Applicants argues that Ikegame does not show or state "a laminate structure" including focus, tracking, and tilt coils.

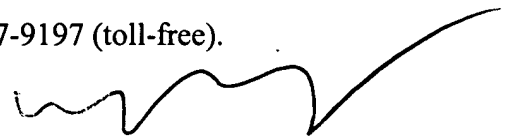
The Examiner cannot concur, because as claimed a "laminate structure"(i.e. *bond layers together, a product composed of layers or sheets bonded together*), Tetsuo, discloses wherein the printed coils 23 and 24 are formed by three-tiered (i.e. *layered: arranged in layers or levels placed one above the other*) structure, bonded together by resin, and disposed within the magnetic gap of the magnetic circuit (See detailed description [0028]; Figs.11, 12)

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L Ortiz-Criado whose telephone number is (703) 305-8323. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm),Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H To can be reached on (703) 305-4827. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



**W. R. YOUNG  
PRIMARY EXAMINER**